

The Transfer of *Tripetalum cymosum* K. Schum. (Guttiferae) to *Garcinia*

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Abstract

The new combination *Garcinia cymosa* (K. Schum.) I.M. Turner & P.F. Stevens is made, based on *Tripetalum cymosum* K. Schum., for a tree from New Guinea and the Bismarck Archipelago. The oldest name available for the species is *Leuconotis tenuifolia* Engl., but this epithet has already been used for another species of *Garcinia*. A columnar form of the tree that is finding success in tropical horticulture, described as forma *pendulum* Lauterb., is also provided with a combination in *Garcinia* and is lectotypified.

Introduction

When describing the genus *Tripetalum*, Schumann (Schumann in Schumann & Hollrung 1889) included a single Papuan species, *T. cymosum* K. Schum. With the exception of a temporary misplacement of an African species, this has remained the sole member of the genus. Schumann noted that *Tripetalum* differed from *Garcinia* in its basically trimerous flowers and in having stamens in fascicles adnate to the petals. Reduction in number of floral parts from four or five to three would alone be insufficient to warrant recognition of a separate genus for a single species. The stamen character is shared with other species from the Papuan area, such as those previously included in *Pentaphalangium* Warb., also reduced to *Garcinia* (Kostermans 1976) and also differing in number of floral parts, as well as *Garcinia warrenii* F. Muell. and, at least in the pistillate plant, *G. platyphylla* A.C. Sm. and *G. hollrungii* Lauterb. All these species have distinctive, branched latex canals in the lamina.

Thus the separation of *Tripetalum* from *Garcinia* cannot be upheld. Indeed, *Tripetalum* has been accepted as a synonym of *Garcinia* by many recent authors (e.g. van Steenis 1987, Brummitt 1992, Höft 1992, Stevens

1995, Mabberley 1997) but surprisingly the formal transfer of the only species in the genus, *Tripetalum cymosum*, to *Garcinia* has not yet taken place. As the new combination is required for a forthcoming checklist of the plants cultivated in the Singapore Botanic Gardens, this deficiency is dealt with here.

A New Combination in *Garcinia*

The earliest available name for the species appears to be *Leuconotis tenuifolia* Engler. The holotype of *Leuconotis tenuifolia* was lost in the destruction of the Berlin Herbarium during the war, but a fragment of the type is available in the herbarium of Wroclaw University. This consists of a single leaf, small piece of stem and a drawing of a fruit. The leaf, when viewed in transmitted light, has a branching system of latex canals typical of *Tripetalum cymosum*. The specimen is actually annotated as *Garcinia tenuifolia* Engler, but this name was never published and the combination has subsequently been pre-empted by Ridley's use of the name for a species from the Malay Peninsula.

Garcinia cymosa* (K. Schum.) I.M. Turner & P.F. Stevens, *comb. nov.

Basionym: *Tripetalum cymosum* K. Schum. in K. Schum. & Hollrung, Fl. Kais. Wilh. Land (1889) 51.

Type: New Guinea, island near Hatzfeldhafen, M. Hollrung 384, November 1886 (holotype, B - destroyed).

Leuconotis tenuifolia Engl., Bot. Jahrb. 7 (1886) 470, *non Garcinia tenuifolia* Ridl. (1928). *Type:* New Britain, Blanche Bay at 500 m, F.C. Naumann s.n., 16 August 1875 (holotype, B - destroyed; isotype, WRS� - fragment).

The Columnar Form of the Tree

Some trees of this species have pendulous branches resulting in a columnar crown form rather than the typical conical crown. These were described by Lauterbach (1923) as *Tripetalum cymosum* forma *pendulum*. Peekel (1984) reported that the columnar trees grown in villages in the Bismarck Archipelago did not grow uniformly to type from seed - some seedlings reverting to wild type or intermediate forms. Intergradation in the crown architecture among individuals argues against recognising the columnar tree at a formal taxonomic rank. However, this tree is now being used in tropical landscape planting, e.g. Singapore, and horticulturists require a name for this entity. A cultivar name may be appropriate, viz. *Carallia brachiata* 'Honiara' (Wong & Whitmore 1994), but it is more expedient to

transfer the forma to *Garcinia* and use that for the cultivated plant, at least in the interim. Interestingly, the columnar form in cultivation in Singapore does remain true to type when grown from seed (Mrs Kartini Omar-Hor, pers. comm.).

Garcinia cymosa (K. Schum.) I.M. Turner & P.F. Stevens forma **pendula** (Lauterb.) I.M. Turner & P.F. Stevens, **comb. nov.**

Basionym: *Tripetalum cymosum* K. Schum. forma *pendulum* Lauterb., Bot. Jahrb. Syst. 58 (1923) 44, *sphalm. pendula*.

Syntypes: Bismarck Archipelago, New Britain, Vunapope, G. Peekel 809d, August 1911; Vakabur, G. Peekel 809b, August 1911 (lectotype, selected here, WRS�).

References

- Brummitt, R.K. 1992. *Vascular Plant Families and Genera*. Royal Botanic Gardens, Kew.
- Höft, R. 1992. Plants of New Guinea and the Solomon Islands: dictionary of the genera and families of flowering plants and ferns. *Wau Ecology Institute Handbook*. **13**: 1–166.
- Kostermans, A.J.G.H. 1976. Notes on Clusiaceae of Sri Lanka and reduction of *Pentaphalangium* Warb. *Ceylon Journal of Sciences (Biological Sciences)*. **12**: 55–71.
- Mabberley, D.J. 1997. *The Plant-Book*. 2nd Edition. Cambridge University Press, Cambridge.
- Peekel, P.G. 1984. *Flora of the Bismarck Archipelago for Naturalists*. Transl. E.E. Henty. Office of Forests, Lae.
- Schumann, K. and M. Hollrung. 1889. *Die Flora von Kaiser Wilhelms Land*.
- Steenis, C.G.G.J. van. 1987. *Checklist of Generic Names in Malesian Botany (Spermatophytes)*. Flora Malesiana Foundation, Leiden.
- Stevens, P.F. 1995. Guttiferae subfam. Calophylloideae. *Handbooks of the Flora of Papua New Guinea*. **3**: 61–126.
- Wong Yew Kwan and T.C. Whitmore. 1994. *Carallia brachiata* cv. Honiara, a beautiful fastigate ornamental tree. *Gardens' Bulletin, Singapore*. **46(2)**: 93–98.